AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Previously Presented) A computer implemented method comprising:

receiving requests for a shared resource, wherein access to the shared resource is controlled with a software lock;

detecting that the software lock is unavailable;

executing an operating system trace hook in response to the detecting, wherein the operating system trace hook records lock usage data, wherein the lock usage data includes a timestamp corresponding to each request, a lock address corresponding to an address of the software lock, a stack call chain for each process making one of the requests at the time the corresponding request was made, and a request count; and

analyzing the recorded lock usage data to identify contended locks and processes that may not be efficiently using software locks.

2.   (Canceled)

3.   (Original) The method of claim 1 further comprising:

receiving a lock release request from a process that currently holds the software lock;

determining whether other processes are currently waiting for the software lock;

emitting a second operating system trace hook and releasing the software lock in response to determining that other processes are currently waiting for the

software lock, wherein the second operating system trace hook is also adapted to record lock usage data; and

releasing the software lock without emitting a trace hook in response to determining that other processes are not waiting for the software lock.

4. (Original) The method of claim 1 further comprising:

identifying one or more processes causing lock contention in response to the analysis of the lock usage data.

5. (Original) The method of claim 4 further comprising:

modifying the identified processes' usage of the shared resource.

6. (Original) The method of claim 1 further comprising:

detecting that the software lock is available in response to receiving the request;

incrementing a lock counter that tracks the number of times the shared resource was requested; and

setting ownership of the software lock to an identifier corresponding to an identifier of the requesting process.

7. (Original) The method of claim 6 wherein the setting ownership further includes:

requesting that a lock ownership field of the software lock be set to the requesting process identifier; and

receiving a completion code indicating that the ownership has been set, wherein the incrementing of the lock counter is performed in parallel with the setting ownership by incrementing the lock counter after the request for the lock ownership field has been set and before the completion code has been received.

8.   (Canceled)

9.   (Canceled)

10.   (Canceled)

11.   (Canceled)

12.   (Canceled)

13.   (Canceled)

14.   (Canceled)

15.   (Canceled)

16.   (Canceled)

17.   (Canceled)

18.   (Canceled)

19.   (Canceled)

20.   (Canceled)